

REMARKS/ARGUMENTS

No claims are currently amended. Claims 1-21 are pending in the application. Reexamination and reconsideration of the application are respectfully requested.

Claims 1-3, 5-8, 11, 12, 13, 17 and 19-21 were rejected under 35 USC §103 as being obvious over Moore (US 2005/0052465) in view of Liaw (US 2005/0066000). This rejection is respectfully traversed.

Claim 1 is directed to a keyboard video mouse (KVM) switch for a plurality of computers to share a plurality of manipulating devices with different connection agreements. One key feature of the KVM switch is that it converts first electrical signals from manipulating devices into standard packets, routing the standard packets to the computers, and converting the standard packets into second electrical signals for the computers. The first electrical signals comply with the connection agreements of the source manipulating devices, and the second electrical signals comply with connection agreements of the connected computers. As described in the specification, the connection agreements of the source manipulating devices and the connection agreements of the connected computers are different. See, for example, the specification at paragraphs [0013] and [0032]. See also paragraphs [0007]-[0010] (describing problems of different connection agreements in the conventional art).

Claims 1 and 12 were previously amended to emphasize the different connection agreements. As amended, claim 1 expressly states: “wherein at least one of the source connection agreements [i.e. the connection agreements of the plurality of source manipulation devices] is different from at least one of the destination connection agreements [i.e. the connection agreements of the plurality of connected computers]”. The same language is also added to amended claim 12.

Moore and Liaw do not teach or suggest the above-quoted claim element. The Moore reference was discussed in detail in the previous amendment, where the applicant argued that Moore teaches using the same connection agreement on both the local and remote sides for both the manipulating devices and the computers. The Examiner acknowledged this deficiency of Moore.

In the instant final Office Action, the Examiner combined Moore with the Liaw reference. The Examiner argued that “Liaw discloses a peripheral switch device (The Matrix Switching Unit 112 of Fig. 1) comprising also at least one host USB peripheral interface (the USB port of

UST I/O module 124, as disclosed in paragraph 0065) and at least one USB peripheral interface that is neither a keyboard interface nor a mouse interface and wherein the keyboard interface and mouse interface could have a PS/2 connection (Liaw, [0065]).” The applicant respectfully disagrees with the Examiner’s characterization of Liaw.

Liaw’s system, as shown in his Fig. 1, includes a switch 112, and a number of multimedia CIMs 116 and a number of multimedia UST 108 connected to the switch 112. Each CIMs 116 is connected to a computer 118, as well as CIM audio output devices 126, CIM audio input devices 128, CIM I/O modules 130. Each UST 108 is connected to keyboard 102, video monitor 104, cursor control device 106, as well as UST audio output device 120, UST audio input device 122, and UST I/O module 124. The multimedia USTs 108 and the CIMs 116 convert data between packet and non-packet format, and the switch 112 switches the packet data between the multimedia USTs 108 and the CIMs 116.

As a preliminary matter, the applicant submits that the CIM I/O modules 130 do not correspond to the claimed “plurality of second interfaces connected to the computers” because the CIM I/O modules 130 are for peripheral devices and not for connecting to a computer (see paras. 0065 and 0066). Thus, only the CIMs 116 might correspond to the claimed “plurality of second interfaces connected to the computers”. Liaw states that the CIM 116 is compatible with all present day computer systems including Microsoft (Windows), Apple (Macintosh), Sun (Unix), etc. (para. 0112). At the end of the UST 108, the UST 108 and the UST I/O module 124 might correspond to the claimed “plurality of first interfaces connected to the manipulating devices” because they can be connected to a keyboard and mouse. Liaw states that the UST I/O module 124 may contain one or more ports of varying types including USB, RS-232, PS/2, etc. (para. 0065).

However, the applicant submits that Liaw still fails to teach or suggest “wherein at least one of the source connection agreements is different from at least one of the destination connection agreements” as required by claims 1 and 12. Although Liaw describes different destination connection agreements (those compatible with Microsoft, Apple, etc.) and different source connection (USB, PS/2, etc.), Liaw merely describes them as possible types of connection agreements that may be implemented. Liaw does not affirmatively describe that in an actual embodiment the source connection agreement can in fact be different from the destination connection agreement. Liaw does not describe, for example, after a destination connection

agreement (between the CIM 116 and the computer 118) is chosen, one can still be free to choose a source connection agreement for the UST 108 or UST I/O module 124 that is different from the destination connection agreement. Although Liaw lists many different source connection agreements and destination connection agreements, it would not be unfair to understand Liaw as suggesting that the source and destination connection agreements should be the same in an actual implementation.

In short, Liaw does not clearly teach or suggest the requirement of claims 1 and 12, “wherein at least one of the source connection agreements is different from at least one of the destination connection agreements”.

Accordingly, claims 1 and 12, and their dependent claims 2, 3, 5-8, 11, 13, 17 and 19-21 are patentable over Moore in view of Liaw.

Claims 9 and 10 were rejected under 35 USC §103 as being obvious over Moore in view of the Examiner’s taking of Official Notice. This rejection is respectfully traversed.

Claims 9 and 10 depend from claim 1. The official notice does not address the deficiency of Moore and Liaw with respect to claim 1. Therefore, claims 9 and 10 are patentable for the same reasons that claim 1 is patentable.

Claims 1-3, 5-8, 11, 12, 13, 17 and 19-21 were rejected under 35 USC §103 as being obvious over Moore in view of Sandulescu et al. (US 2005/0216620). This rejection is respectfully traversed.

Moore has been discussed before.

Sandulescu describes a switch 100a/100b. The switch 100b in Fig. 1b has universal keyboard and mouse interfaces 113x and universal host interfaces 109x, which are further shown in Figs. 2 and 3. The universal keyboard and mouse interface 113x determines the type of keyboard and mouse plugged into it (e.g., Sun, Apple, IBM PS/2, USB) by using special cables (see paras. 0057-0061). Similarly, the universal host interface 109x determines the type of host computer plugged into it (e.g., Sun, Apple, IBM with PS/2, USB) by using special cables (see paras. 0062-0066). The user controller 122x and computer controller 120x perform emulation functions for the keyboard/mouse and the host (paras. 0042, 0067-0068). The user controllers 120x and computer controller 120x are coupled to a bus 123.

However, Sandulescu does not teach or suggest that the switch 100a/100b can allow one type of host computer (e.g. Sun) to communicate with a different type of keyboard/mouse (e.g.

Apple). The universal keyboard and mouse interface 113x and universal host interface 109x will allow various types of keyboard/mouse and host computers to be connected to the switch, so that a Sun keyboard/mouse can manipulate a Sun computer, etc., but it does not necessarily mean that the structure will allow a Sun keyboard/mouse to manipulate an Apple computer (for example). While the user controller 122x and computer controller 120x perform emulation functions for the keyboard/mouse and the host, this merely means that they will behave correctly with respect to the host and the keyboard/mouse they are connected to; there is no disclosure that the user controller 122x and computer controller 120x convert signals complying with one connection agreement into signals complying with a different connection agreement, which would have been necessary in order for one type of keyboard/mouse to manipulate a different type of host computer. In this connection, the applicant notes that although Sandulescu describes that the user controller 122x and computer controller 120x convert signals to and from an I²C format, the I²C format pertains to the form of electrical signals on the I²C bus 123, and is not a keyboard/mouse signal format or protocol. Thus, such conversion per se does not achieve the goal of allowing different types of host computer and keyboard/mouse to communicate with each other.

In short, Sandulescu does not clearly teach or suggest the requirement of claims 1 and 12, “wherein at least one of the source connection agreements is different from at least one of the destination connection agreements”.

Accordingly, claims 1 and 12, and their dependent claims 2, 3, 5-8, 11, 13, 17 and 19-21 are patentable over Moore in view of Sandulescu.

Claims 4 and 18 were rejected under 35 USC §103 as being obvious over Moore and Liaw or Sandulescu and in further view of Shirley (US 6567869). This rejection is respectfully traversed.

Claims 4 and 18 depend from claims 1 and 12, respectively. Shirley does not cure the deficiency of Moore, Liaw and Sandulescu with respect to claims 1 and 12. Shirley was cited for teaching a header section of packets. Therefore, claims 4 and 18 are patentable for the same reasons that claims 1 and 12 are patentable.

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Reexamination and reconsideration of the application, as amended, are requested. If for any reason the Examiner finds the application other than in condition for allowance, the

Examiner is invited to call the undersigned attorney at the Los Angeles, California telephone number (213) 625-5076 to discuss the steps necessary for placing the application in condition for allowance.

If there are any fees due in connection with the filing of this response or deficient in fees, please charge the fees to our Deposit Account No. 50-3531.

Respectfully submitted,

Date: Aug. 26, 2009

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